



EPA/HDOH
PROPOSE DELAY OF CLOSURE PROCESS
FOR THE
FORMER OPEN BURNING/OPEN DETONATION UNIT AT
MAKUA MILITARY RESERVATION



SEPTEMBER 1998

The United States Environmental Protection Agency (EPA) and the Hawaii Department of Health (HDOH) are seeking public comments about the EPA's proposed decision to delay granting final regulatory closure approval for the former open burning/open detonation unit (OB/OD unit) at the United States Army's Makua Military Reservation (the MMR, see figure 1). Before the EPA and the HDOH make a final decision, we are inviting interested members of the public to comment on this proposed decision during the comment period (September 21, 1998 to October 28, 1998). In addition, the EPA and the HDOH will host a community meeting on this proposed decision in Waianae on September 30, 1998 (see box for details). Since November 1992, the Army has not used the former OB/OD unit at the MMR for treatment activities and it has been operationally closed since that time. The Army will not use the unit in the future.

PROPOSED DECISION

The EPA is proposing that final regulatory closure of the former OB/OD unit be delayed until closure of the entire MMR. The EPA and the HDOH believe that granting final approval of the closure is not appropriate now because of:

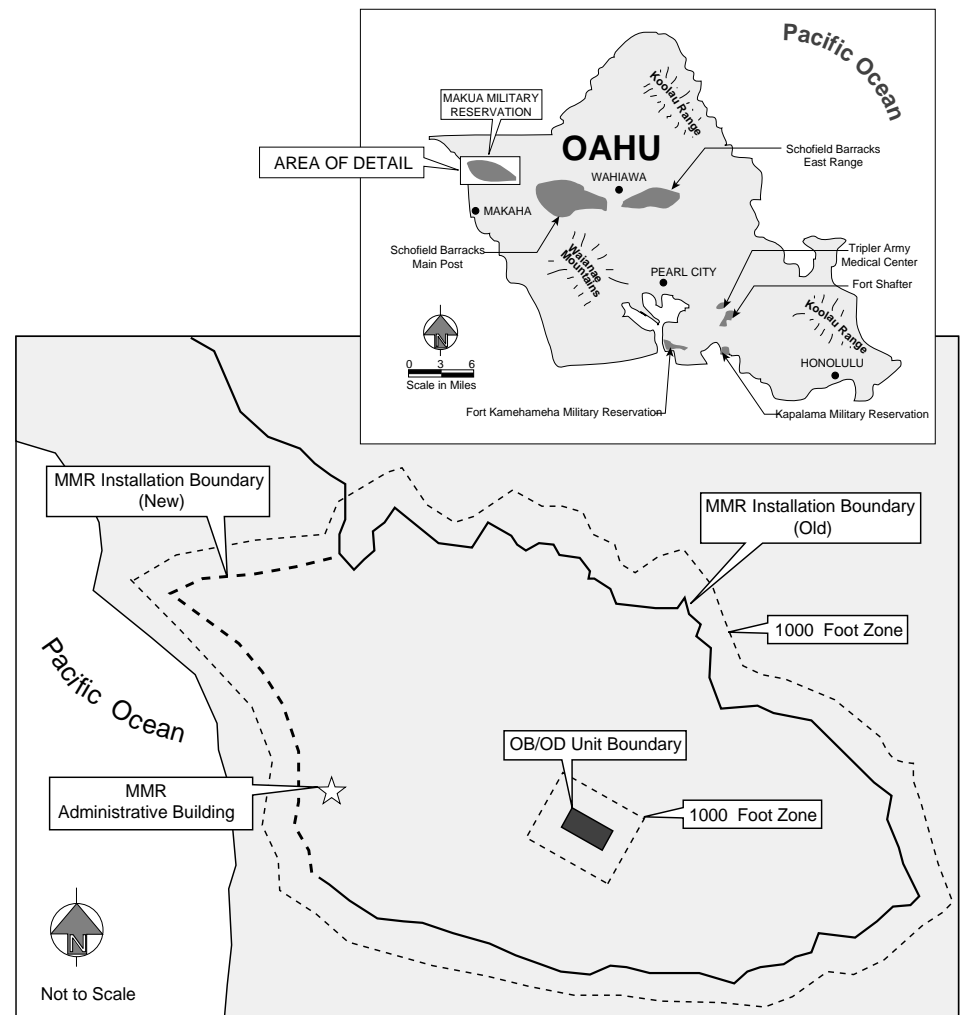


Figure 1 Site Location Map

- 1) the ongoing non regulated military training operations adjacent to the former OB/OD unit,
- 2) the nature and extent of the possible soil contamination at the former OB/OD unit, and
- 3) the former OB/OD unit is inside the boundary of the active training facility, and will continue to be potentially impacted by training activities.

Final closure approval of the former OB/OD unit should be delayed until all exempted military activities at the MMR are discontinued in order to address the concerns described above, prevent duplication of efforts by the EPA, the HDOH, and the Army; and to conduct clean up activities for the entire MMR. In its draft written agreement with the Army, the EPA has proposed that the closure process for the former OB/OD unit be modified to include:

- a description of the closure activities to date for the former OB/OD unit,
- a schedule that includes regulatory closure of the former OB/OD unit at the time of base closure,
- submission of soil/sediment sampling activities for the former OB/OD unit to be a part of a site-wide sampling plan for the MMR,
- provisions to ensure that impacts to biota from closure activities are minimized,
- contingency language requiring that the Army clean up unexploded ordnance (UXO) and contaminated OB/OD soil areas that exceed health-based criteria, and
- annual inspection and reporting requirements for the former unit to make sure it remains closed.

The Department of Defense has an ongoing obligation to address environmental damages at military bases, as described in the proposed rule (32 CFR Part 178) “Closed, Transferred, and Transferring Ranges Containing Military Munitions,” also called the range rule. The five-part process outlined in the range rule is similar to the Superfund cleanup process, and is tailored to the special risks posed by military munitions and military ranges. If the MMR closes, the Base Realignment and Closure (BRAC) process and the range rule will be used to coordinate site-wide closure activities. As part of the range rule process, the Army will conduct a range assessment (RA) in which various options for protective measures, including monitoring, will be implemented. If these measures are not sufficient to address safety, human health, and the environment, the Army will conduct a more detailed site-specific range evaluation. Recurring reviews by the Army and the EPA and an administrative close out phase are also included in the process. The BRAC process and the range rule provide several different mechanisms for the public to be informed of and involved in the process, including an information repository, a designated point of contact, Extended Project Teams, Restoration Advisory Boards, formal and informal meetings, fact sheets, public notices, and public comment periods.

SITE DESCRIPTION

The Makua Military Reservation (MMR) is located at the west end of the island of Oahu approximately 35 miles northwest of Honolulu near Kaena Point. The

facility sits in the Makua Valley surrounded on the north, east, and south by the Waianae Mountains (elevations from 3,000-3,500 feet above sea level) and on the west by the Pacific Ocean. The Makua Valley is partially separated from the Kahanahaiki Valley by a ridge stretching about 1 mile from the Pacific Ocean. Makaha is the closest municipality, located about five miles south of the MMR. Groundwater is not used as a water supply by the Army or the public in the MMR area. Entry to the MMR grounds is restricted by the Waianae Mountain Range on the north, south, and eastern boundaries, and by a fence on the western boundary.

Since 1929 (except for a brief period between 1940 and 1941), the Makua Valley has been used as a military tactical training center for the United States Army. The MMR occupies about 4,200 acres of which 18 acres were previously designated for open burning/open detonation (OB/OD) activities. Although the former OB/OD unit area is 18 acres, only 4 acres were actually used by the Army for burning and detonation.

The soils underneath the former OB/OD unit at the MMR are at least 125 feet deep and rich in clay, making the soils relatively impermeable. Sampling conducted by the Army in 1993 indicated that no shallow groundwater (50 feet or less) was detected at the former OB/OD unit, and groundwater is not expected to occur at a depth of less than 125 feet. If groundwater is present at more than 125 feet below the ground surface, it is expected to be confined by the overlying hard rock

and sediments layer, or caprock. The thick clay soils inhibit contaminants from moving down, making it highly unlikely that groundwater in the area, if present, would be contaminated from the former OB/OD unit.

CONTAMINANTS FOUND AT THE FORMER OB/OD UNIT

Studies of soil samples conducted in 1993 and 1994 indicated that past activities have left elevated contamination levels within the OB/OD unit area that exceeded the EPA's conservative public health criteria (PHC) for lead, arsenic, and 2,4 and 2,6 dinitro toluene (2,4-DNT and 2,6-DNT). The PHC are based on lifetime exposure to contaminants. At this time, the PHC are not directly applicable to the former OB/OD unit because access to the area is restricted. The 1993 and 1994 studies also indicated that none of the EPA's public health criteria were exceeded at the boundary of the MMR.

MILITARY TRAINING OPERATIONS

The Army currently uses the MMR for military training operations, including small arms and artillery firing, helicopter gunnery practice, and tactical live-fire training. As part of these operations, the Army continues open burning of excess ammunition powder bags remaining after artillery and mortar training conducted at the MMR. Excess powder bags are burned in a pan designed to contain the residue of the burn. The residue is collected, placed in a storage container, and tested to determine if it must be disposed of as hazardous waste. All residues from the burning of powder bags at the MMR have been classified as

non-hazardous waste and disposed of at a municipal landfill. As part of range clearance activity, the Army's Explosive Ordnance Division (EOD) will continue disposal of unexploded ordnance (UXO) found on the range. The disposal activities are implemented to protect those who are involved in training exercises at the MMR. In a limited number of cases, the EOD also conducts non regulated emergency disposal activities at the MMR. In accordance with the EPA Military Munitions Rule (40 CFR 266), an active military range such as the MMR, is exempt under RCRA when performing OB/OD as part of conducting an emergency response, or when performing OB/OD for training purposes.

Past regulated operations at the former OB/OD unit consisted of open pit burning or detonation of waste military munitions. Military munitions can be composed of propellants, explosives, and pyrotechnics (PEP); metal parts; and other inert components. In addition, explosive chemicals such as picric acid and aged ether from Tripler Army Medical Center and the University of Hawaii were also destroyed at the unit while it was under interim status.

Unserviceable or faulty military munitions from other facilities in Hawaii were also burned or detonated at the former OB/OD unit. The explosive chemicals and unserviceable/faulty munitions are considered hazardous waste due to their explosive or flammable nature. All items sent to the former OB/OD unit were treated on the day of arrival. Based on facility records, the Army has estimated that the maximum hazardous wastes ever on-site over the active

life of the OB/OD unit was 2,000 pounds (net explosive weight). Net explosive weight is the amount of explosive material in a device.

PERMITTING HISTORY

When the Army first started conducting its activities at the MMR, hazardous waste management was not a regulated activity. The EPA began regulating OB/OD units in 1980, and existing OB/OD units were given "interim status" until final permit decisions could be made. In 1984, Congress set a November 1992 deadline for the EPA to make a decision on whether to issue permits to interim status OB/OD units, for permit applications submitted in 1989. Because the Army did not submit its permit application on time, interim status to operate the OB/OD unit at the MMR and activities at this unit terminated.

In 1992, the Army started the permit process again, and in October, a draft permit was issued for public comment. As a requirement of this process, the EPA requested that the Army perform a characterization study of the former OB/OD unit. The Army issued the **Makua Military Reservation Environmental Sampling Plan** in September 1993 and the **Makua Military Reservation Soil and Groundwater Analysis Report** in March 1994. Although the March 1994 report did indicate elevated contamination levels in the former OB/OD unit area, the nature and extent of the contamination was not fully characterized. Ongoing activities in the adjacent area meant that it was possible in the future that other contaminants and/or UXO could be deposited in the

former OB/OD unit. In September 1994, the Army withdrew their application and notified the EPA that they were initiating the closure process. The Army indicated that there was no longer a recurring need to dispose of unserviceable weapons with the OB/OD unit, and that a change of mission in the Pacific region made the unit unnecessary. Waste ordnance is now shipped off the island for disposal to the continental United States or locations in the Pacific region. In October 1994, the EPA asked the Army to provide a narrative statement to address the RCRA interim status closure requirements (40 CFR 265). In December 1994, the Army submitted a report to the EPA, stating that the closure requirements were satisfied. As part of the required closure package, the 1993/1994 studies

were submitted to the EPA. Since 1994, the Army has conducted semiannual "open houses" for the public to tour the MMR.

COMMUNITY INVOLVEMENT

The EPA and HDOH encourage members of the public to submit comment on this proposed decision from September 21, 1998 to October 28, 1998. Comments can be sent to either the EPA (Vern Christianson) or HDOH (Paul Kalaiwaa) at the addresses listed below. The EPA and HDOH will hold a community meeting regarding this proposed decision on September 30, 1998 at the Waianae Coast Comprehensive Health Center, from 7:00 p.m. to 9 p.m. At this meeting, EPA representatives will describe the reasons for this proposed decision and answer questions from community members. Community

members will have the opportunity to give written and verbal comments on this proposed decision and elements of the written agreement at the community meeting. Community members are also encouraged to provide comments to the EPA and HDOH through the close of the comment period. After reviewing public input on this decision, the EPA will prepare a response to comments document, and make a final decision. If the final decision is to delay closure as proposed, the EPA would formalize this decision in a written agreement with the Army or through some other enforceable action. The EPA would require that the Army close the former OB/OD unit in an environmentally protective way, even if the final closure is some years in the future.

Information Repositories

Additional copies of this fact sheet and documents about the former OB/OD unit are available for review at the locations listed below:

Waianae Public Library
Reference Desk
85-625 Farrington Highway
Waianae, HI 96792
Contact: Faith Arakawa
Telephone: 808-696-4257

Hawaii Department of Health
Solid and Hazardous Waste Branch
919 Ala Moana Blvd., Room 212
Honolulu, HI 96814
Contact: Paul Kalaiwaa
Telephone: 808-586-4226

USEPA Region 9
RCRA Records Center
75 Hawthorne Street (WST-4)
San Francisco, CA 94105-3901
Contact: Vern Christianson
Telephone: 415-744-2422

U.S. EPA Pacific Islands Contact
Office
300 Ala Moana Blvd., Room 5-152
Honolulu, HI 96850
Contact: Vicki Tsuhako
Telephone: 808-541-2721

25th Infantry Division (Light) and
United States Army, HI
United States Army Garrison, HI
(APVG-GWV)
Environmental Compliance and
Pollution Prevention Branch
Schofield Barracks, HI
96857-5013
Contact: Gary Akasaki
Telephone: 808-656-2878,
ext. 1022

An electronic version of this fact sheet is available on the USEPA Region 9 World Wide Web Site, at <http://www.epa.gov/region09/waste>

FOR ADDITIONAL INFORMATION

For additional copies of this fact sheet or for other information on the OB/OD unit
at the Makua Military Reservation, please contact:

Carl Warren
Project Manager
USEPA Region 9
75 Hawthorne Street (WST-4)
San Francisco, CA 94105-3901
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Fax: 415-744-1044
e-mail: warren.carl@epamail.epa.gov

Catherine McCracken
Community Involvement Specialist
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Fax: 415-744-1796
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For media inquiries contact:

Paul Kalaiwaa
Hawaii Department of Health/
Solid and Hazardous Waste Branch
919 Ala Moana Blvd., Room 212
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...or you may leave a message on the EPA's Office of Community Involvement toll-free line at
800-231-3075 and your call will be returned.

MAILING COUPON

If you did not receive this notice in the mail and would like to be included on the list to receive future EPA
mailings about the Makua Military Reservation, please fill out the coupon below and return to:

Catherine McCracken, Community Involvement Specialist
USEPA Region 9, 75 Hawthorne Street (SFD-3)
San Francisco, CA 94105-3901

PLEASE PRINT ALL INFORMATION

NAME: _____

ADDRESS: _____

PHONE: _____ FAX: _____ E-MAIL: _____

*ORGANIZATIONAL AFFILIATION: _____

(*Optional items)

You may also provide the above information via e-mail to: mccracken.catherine@epamail.epa.gov

COMMUNITY MEETING

Regarding the proposed decision by the EPA for the former OB/OD unit at the Makua Military Reservation

Wednesday, September 30, 1998

7:00 to 9:00 p.m.

Waianae Coast Comprehensive Health Center

86-260 Farrington Highway

Waianae, HI

At this meeting, EPA representatives will describe the reasons for this proposed decision and answer questions from community members. Community members will have the opportunity to give written and/or verbal comments on this proposed decision and elements of the written agreement at the community meeting.

The EPA and the HDOH encourage members of the public to submit comments on this proposed decision from September 21, 1998 to October 28, 1998. In addition to providing verbal and/or written comments at the community meeting, comments may be submitted by mail, fax, or e-mail to:

Vern Christianson

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